18. (Amended) A laser cavity according to claim 17, in which said monocrystalline layer of doped saturable absorbent material is deposited by liquid phase epitaxy (LPE).

19. (Amended) A laser cavity according to claim 17, in which the substrate is a YAG active laser material, doped by one or several doping ion(s) that confer active laser material properties on it.

20. (Amended) A laser cavity according to claim 19, in which at least one said doping ion is selected from the group consisting of: Nd ion, Cr ion, Er ion, Yb ion, Ho ion, Tm ion and Ce ion.

21. (Amended) A laser cavity according to claim 19, in which the proportion of the doping ion(s) is 0.1 to 10 moles % for each ion.

22. (Amended) A laser cavity according to claim 17, in which the monocrystalline layer of a saturable absorbent material is a YAG doped with one or several doping ions selected from the group consisting of Chromium (Cr) ion, Erbium (Er) ion, Thulium (Tm) ion, and Holmium (Ho) ion.

23. (Amended) A laser cavity according to claim 22, in which said doping ion is Chromium ion.

24. (Amended) A laser cavity according to claim 22, in which the proportion of the doping ion(s) is 1 to 10 moles % for each doping ion.

25. (Amended) A laser cavity according to claim 17, in which the layer and/or the substrate are doped with at least a second doping agent or substitute in order to modify their structural and/or optical properties.

26. (Amended) A laser cavity according to claim 25, in which said second doping ion is selected from the group consisting of gallium ion and an inactive rare earth ion.

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27. (Amended) A laser cavity according to claim 17, in which the thickness of the monocrystalline layer of saturable absorbent material is between 1 and 500 μm.

28. (Amended) A laser cavity according to claim 17, in which the said monocrystalline layer of saturable absorbent material is a thin layer with a thickness of between 1 and 150 μm.

29. (Amended) A laser cavity according to claim 17, which also comprises an entry mirror and an exit mirror, said entry mirror being directly deposited on the substrate made of a saturable absorbent material.

30. (Amended) A laser cavity according to claim 29, in which the exit mirror is directly deposited on the monocrystalline layer made of a saturable absorbent material.

31. (Amended) A process for the collective production of triggered microlaser cavities comprising the steps of:

supplying a substrate made of a doped or undoped $Y_3Al_5O_{12}$ (YAG) active laser material with a [100] orientation in the shape of a sheet with parallel faces polished on its two faces;

depositing a monocrystalline layer of doped YAG saturable absorbent material on one of the faces of the said $Y_3Al_5O_{12}$ (YAG) active laser material, by liquid phase epitaxy;

polishing the saturable absorbent monocrystalline layer thus deposited;

depositing entry and exit mirrors on the two polished faces of the cavity; and

cutting out the substrate - monocrystalline layer - mirrors complex thus obtained;

wherein said doped or undoped active laser material YAG, said monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on

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said active laser material by liquid phase epitaxy, and the specific [100] orientation of both said active laser material and the said monocrystalline layer achieves controlled polarization of the laser cavity.

32. (Amended) A triggered laser with controlled polarization comprising a cavity according to claim 17, and pumping means for this cavity.

REMARKS

Claims 17-32 have been amended to clarify the invention and better define the invention over the art. No new matter has been entered.. Pursuant to 37 CFR § 1.121, a marked copy of the amended claims showing changes made therein accompanies this Amendment.

Considering first the rejection of claims 17-32 under 35 USC § 112, claims 17 and 31 have been amended to clarify that features that "achieve controlled polarization of the laser cavity" are the active laser material $Y_{13}\,Al_5\,O_{12}$ (YAG), the monocrystalline layer of saturable absorbent material made of doped YAG deposited directly on said active laser material by liquid phase epitaxy, and the specific [100] orientation of the active laser material and monocrystalline layer. Thus, claims 17 and 31, as amended, distinguish which features effect the polarization control.

Turning to the rejection of claims 17-28 under 35 USC § 112 for failing to define the entirety of the apparatus forming the laser cavity, it is respectfully submitted that the Examiner's rejection is in error. The Manual of Patent Examining Procedure provides "a person need not teach, and preferably omits, what is well known in the art" (see MPEP § 2164.01). In the instant Application, the inventive features of the laser cavity are clearly defined and the remaining elements are well known to those skilled in the art. See, for example, Molva et al., U.S. Patent No. 5,495,494 (col. 8, lines 66-67 and col. 9, lines 1-11), Zhou et al., U.S. Patent No. 5,414,724

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